Vol. 9 No.

Bulletin

of the

Chicago Academy of Sciences

Notes on Some Reptiles from the Huachuca Area of Southeastern Arizona

William H. Woodin Arizona-Sonora Desert Museum, Tucson



Chicago
Published by the Academy
1953

The Bulletin of the Chicago Academy of Sciences was initiated in 1883 and volumes 1 to 4 were published prior to June, 1913. During the following twenty-year period it was not issued. Volumes 1, 2 and 4 contain technical or semi-technical papers on various subjects in the natural sciences. Volume 3 contains museum reports, descriptions of museum exhibits, and announcements.

Publication of the Bulletin was resumed in 1934 with volume 5. It is now regarded as an outlet for short to moderate-sized original papers on natural history, in its broad sense, by members of the museum staff, members of the Academy, and for papers by other authors which are based in considerable part upon the collections of the Academy. It is edited by the Director of the Academy with the assistance of a committee from the Board of Scientific Governors. The separate numbers are issued at irregular and distributed to libraries, scientific organizations, and specialists with whom the Academy maintains exchanges. A reserve is set aside for future need as exchanges and the remainder of the edition offered for sale at a nominal price. When a sufficient number of pages have been printed to form a volume of convenient size, a title page, table of contents, and index are supplied to libraries and institutions which receive the entire series.

Howard K. Gloyd, Director.

Committee on Publications:

Alfred Emerson, Professor of Zoology, University of Chicago. C. L. Turner, Professor of Zoology, Northwestern University. Hanford Tiffany, Professor of Botany, Northwestern University.

Bulletin of the Chicago Academy of Sciences

Notes on Some Reptiles from the Huachuca Area of Southeastern Arizona

William H. Woodin

A rizona-Sonora Desert Museum, Tucson

The Huachuca Mountains of southeastern Arizona are well known among many collectors and scientists for their variety of flora and fauna. Situated with their southernmost end at the Mexican border, the Huachucas are one of few places in the United States where exist certain forms of animal and plant life whose ranges are principally in Mexico. The herpetofauna is no exception. In addition to other rare species in the region, the Huachuca black-headed snake, *Tantilla w. wilcoxi*, occurs in the United States only in the Huachuca area and the ridge-nosed rattlesnake, *Crotalus w. willardi*, only in the Huachuca and Santa Rita Mountains.

It is not surprising, then, that this region has been for many years a favorite collecting ground for herpetologists. In fact as early as 1902 Stejneger (1902, p. 149) stated that "Few places in southern Arizona have been so well searched for reptiles and by so many collectors as Fort Huachuca and ... the Huachuca Mountains." In more recent years Gloyd (1937), Kauffeld (1943), and others have visited the area and published annotated lists of specimens collected. The newly organized Huachuca Museum, with headquarters at the historic fort, is attempting to build up a representative collection of native forms of life as well as items of historical significance for preservation within the region itself.

In an effort to obtain some idea as to the habitats of many of the rarer and more secretive forms, which only persistent hunting would reveal, I desired to spend considerable time in the Huachuca area. Some of these had been sought in vain by previous collectors. Through the kindness of Major and Mrs. John H. Healy, a place was secured in Carr Canyon at an elevation of about 5500 feet. A total of six weeks was spent at this location in 1950: June 22 to 30 and July 14 to August 17. At least several hours each day

were spent in collecting on foot in the mountains and considerable driving was done on the roads at night in the San Pedro Valley, mostly on State Highway 92 between the entrance to Carr Canyon and Don Luis, west of Bisbee. A heavy rainy season with resulting overcast afternoons and cool nights, which seemed to have no detrimental effect on the mountain collecting, rendered night hunting quite difficult as far as reptiles were concerned. The moon also seemed to have an adverse effect, a condition discussed by Klauber (1939, p. 20). On moonlit or cool nights one was fortunate to find a single nocturnal snake (and that generally *Rhinocheilus*) in forty miles or so of travel. Finally night collecting was restricted to nights following relatively hot, rainless days, preferably in the dark of the moon.

Practically no daytime collecting was attempted in the valley, nor was it intended to work the neighboring Sulphur Springs Valley at night at this time. However, a few trips were made in the latter area, primarily consisting of driving home from Douglas at night, with one daylight excursion.

I wish to extend my thanks to my many friends of the Huachuca area who were most helpful during my stay there. These include Major and Mrs. Healy, whose aid and many kindnesses are much appreciated; Randolph Fenton, Jr., Fred Olsen, Roy and Don Newman, Earl Long and Robert White for much assistance on previous occasions.

Dr. D. F. Hoffmeister of the University of Illinois very kindly identified a number of rodents removed from stomachs of snakes. I am also indebted to Dr. Robert C. Stebbins of the University of California for his most helpful criticism of this manuscript.

Special thanks are due my good friend Roy D. Holland of Dos Cabezas for his interest and continued help through the years.

The following is a list of snakes, and certain lizards, secured on this trip.

Holbrookia maculata approximans Baird. Speckled Earless Lizard.

These lizards were very numerous on the flats near the base of the mountains. Two were found abroad at night on the road at 9:20 and 9:35 P. M., June 26 and July 28, the latter specimen during a slight drizzle.

Holbrookia maculata pulchra Schmidt. Mountain Earless Lizard.

Two individuals, both gravid females, were collected near the Sylvania Ranch in Scotia Canyon at about 6200 feet, July 19.

Phrynosoma cornutum (Harlan). Texan Horned Lizard.

This species was encountered only in the Sulphur Springs Valley, one being obtained from El Frida June 23 and another collected on Route 80, west of Douglas, at 6:35 P. M., August 9.

Phrynosoma douglassi hernandesi (Girard). Mountain Short-horned Lizard.

Two small individuals were noted at different times on the Reef Road at about 7500 feet elevation. Other adults, both alive and dead, were seen on Carr Canyon Road and Route 92 near the base of the mountains, at elevations of 4800 to 4900 feet. One of these, a large female measuring 108 mm. in snout-vent length, taken July 15, gave birth to 30 young on July 25. They averaged about 36 mm. in total length, and varied in color from reddish through yellowish-brown to nearly solid dark grey. Traces of crossbands were generally present.

Phrynosoma solare Gray. Regal Horned Lizard.

Several were seen from time to time on roads in the valley, as well as near the base of the mountains in the same area as the preceding species.

Elgaria kingii nobilis Baird and Girard. Sonoran Alligator Lizard.

Nine specimens were taken at elevations of from 5000 to 7000 feet. Another, given me by Mr. Secrest, was killed in the valley near Hereford at about 4100 feet, August 2. All but three were in the open when seen. These three (adults) were discovered within a few minutes under pieces of tin at the Hamburg Mine in Ramsay Canyon, on a rainy afternoon, July 17. A medium-sized individual from the Carr Canyon Ranch at 5300 feet was found by Randolph Fenton, Jr. on July 25, caught in a spider web. A juvenile was collected at Ft. Huachuca August 3 on a back porch, where it had been seen the day before. One of these lizards, collected by Don Newman at 5000 feet near the entrance to Ramsay Canyon August 16, was quite reddish in color, having brick red crossbands on a tan background.

Eumeces callicephalus Bocourt. Mountain Skink.

One juvenile was discovered under a board in a grassy area in Carr Canyon at 5500 feet. It vanished in the grass after losing its tail in a struggle to elude capture. Nearly a week later it was found again under the same board. Despite every precaution it again disappeared, then reappeared a short time later for a *few* seconds, only to vanish once more in a small clump of

grass! Each time the skink disappeared the region was thoroughly searched, until eventually the area became quite torn up. The next day, August 12, it was once more under the same board, and this time was headed into some nearby rocks, where it was cornered in a crevice and captured.

No others were seen in the Huachucas. I have found this species rather common in the canyons of the Ruby area west of Nogales.

Eumeces obsoletus (Baird and Girard). Sonoran Skink.

On August 1, about noon, nine of these skinks were captured and others seen on the flats near a dry creek below the entrance to Ramsay Canyon at 5000 feet. This was the first sunny day after a considerable rainy spell. The series included several juveniles and a few large individuals, the largest measuring 125 mm. in snout-vent length. All were found under pieces of tin and boards except two of the largest, which were glimpsed or heard in the grass near the creek, each disappearing under a large rock. A small individual was found dead, though not spoiled, under a hot piece of tin; the dried remains of a larger one were found under another piece. This locality was revisited a week later, again around noon, after a relatively dry period; only one skink was found—under a rock near the creek.

Leptotyphlops dulcis dissecta (Cope). New Mexican Worm Snake.

One specimen, taken by Russell Olsen August 16, was found dead in the swimming pool at the Flying H Ranch at the base of the mountains.

Diadophis regalis (Baird and Girard). Arizona Ring-necked Snake.

One individual measuring 700 mm. in total length was found dead on the road at Ft. Huachuca about 10 A.M., July 26. Another, 697 mm. in length, was collected by Mrs. Healy August 14 on the Carr Canyon Road at 5200 feet about 6:45 P.M. This snake is reportedly not uncommon in lower Ramsay Canyon.

Heterodon nasicus kennerlyi Kennicott. Southwestern Hog-nosed Snake.

Three specimens found dead on the road at night in the valley, one on August 10 and two August 15, doubtless were killed while prowling in the late afternoon. Another, *collected* by Fred Olsen for the Huachuca Museum, contained a spadefoot toad, *Scaphiopus h. hammondii*. Specimens of this snake which I have had in captivity ate dead lizards.

Masticophis bilineatus bilineatus Jan. Sonoran Racer.

Three Sonoran racers were obtained in the Huachucas and another was seen. One, discovered on the Reef Road at about 5900 feet June 24, when

pursued climbed a small live oak, where it was easily captured. Another adult, in pre-molt condition, was found under some pieces of tin at 5000 feet August 1, together with a medium-sized skink (E. obsoletus). A young specimen, taken in the dry creek bed in Carr Canyon at 6000 feet June 29, contained two juvenile Sceloporus i. jarrovii. Two other large adults were brought from Dos Cabezas near Willcox by Mr. Holland, who reports that they are common in that vicinity. After being in captivity but a short time all these individuals quieted down and could be handled without their biting, characteristics which seem to be customary for this species.

Masticophis flagellum piceus (Cope). Red Racer.

Three specimens, one by Mrs. Healy, were found dead on the highway in the evening, a short distance from the base of the mountains, June 21, July 23, and August 13. The first of these, found near Fry and not saved, contained the remains of several *Holbrookia m. approximans*. The second contained a gravid female *Holbrookia*. A small individual, first seen in the middle of the road near Gleason, vanished in a small clump of grass.

Salvadora hexalepis deserticola Schmidt. Big Bend Patch-nosed Snake.

One patch-nosed snake was found dead on Route 82 near the entrance to Carr Canyon, August 8. Another snake, probably of this species, was seen on the road near Hereford.

Pituophis catenifer affinis Hallowell. Sonoran Gopher Snake.

Numerous gopher snakes were seen, mostly on the roads on cloudy days or in the evening, at elevations below 6000 feet. Few made any attempt to bite. However, one individual, when its escape was cut off, hissed and struck repeatedly.

Lampropeltis getulus splendida (Baird and Girard). Sonoran King Snake.

Two adults were taken on the road at night between Palominas and Don Luis, July 15 and August 10. One, a male, had an incomplete tail, little over an inch long.

Lampropeltis pyromelana (Cope). Arizona Coral King Snake.

Four specimens, all adults, were obtained at altitudes of from 5500 to 6500 feet, June 24, July 22, August 6 and 9. Another was seen at the lower elevation but it escaped in a rock wall. One was found on a rainy, overcast morning, prowling in the wet grass near the creek in Carr Canyon; another with an incomplete tail, found farther up the canyon, contained two mice

(Peromyscus). All individuals were in the open when seen, although one had nearly disappeared under a boulder. In captivity examples of this species, when handled, appear quiet and gentle. However, while exploring one's hands and arms they will on occasion deliberately open their mouths and chew for several seconds.

Rhinocheilus lecontei lecontei Baird and Girard. Western Long-nosed Snake.

These snakes were found at night on the road in both the San Pedro and Sulphur Springs valleys. One collected June 24, just after being hit, contained five eggs, four of which measured $36x14\frac{1}{2}$, 42x13, 38x15, and 36x15 mm. Another gravid female collected June 29 laid seven eggs during the first week in July, unfortunately while I was away. Another, brought from Tucson, laid nine infertile eggs on August 15 and 16. These averaged about 25x16 mm. One specimen contained the remains of a *Cnemidophorus*. Two snakes, probably of this species, were lost in the grass along the side of the road.

Rhinocheilus lecontei clarus Klauber. Desert Long-nosed Snake.

Two were taken at night in the San Pedro Valley, one on a cold night during a rain at 10:50 P.M., July 19 (west of the river), the other near Naco on the Mexican border, August 2. The former had 22 body blotches with the interspaces sufused with pink, the latter, 17 body blotches, with very little trace of reddish coloration. Both had considerable ventral spotting. I have collected many specimens of this subspecies in the Tucson area.

Sonora semiannulata isozona (Cope). Western Earth Snake.

This species was not collected on this trip; however, one was received earlier from Fry near Ft. Huachuca, taken by Robert White. He reported that it was found dead on the ground among poisoned grasshoppers. It contained no grasshoppers, but the large amount of gravel in the stomach and esophagus, the partly open mouth, and the contorted position all point toward convulsions. Another specimen, collected near Dos Cabezas by Mr. Holland, was out in the open on a sunny afternoon when seen and disappeared in the sand under a tumbleweed. These individuals were both of the banded phase.

Gyalopion canum Cope. Western Hook-nosed Snake.

An adult female 278 mm. in length was collected on Route 82 at 10:20 P.M., August 17, 14 miles west of Tombstone, after several hot days in the midst of the rainy season. The country is the flat, open desert west of the

San Pedro River, covered with rather dense, low white thorn (Acacia constricta paucispina) and scattered black brush (Florencia cernua). This is one of the few specific records of Gyalopion in Arizona, although Van Denburgh (1922, p. 779) records it from Montezuma Canyon, Huachuca Mountains.

This snake exhibited the jerking of the body and popping of the cloaca, especially when freshly captured, as noted by Taylor (1931, p. 5). Later it calmed down somewhat but would suddenly change its position when touched, in the manner of *Phyllorhynchus*, which it rather resembles in general appearance.

Thamnophis cyrtopsis cyrtopsis (Kennicott). White-bellied Garter Snake.

One individual was found near a pool in a small canyon at 6500 feet, June 23. No others were seen in the mountains, although one was discovered under an old floor near the entrance to Ramsay Canyon, August 1, at least half a mile from the nearest water. Twelve specimens were collected within a few minutes at the edge of a pond near Gleason, August 10. More than half were taken under a single piece of tin, the rest under boards. These snakes were gorged on tiny spadefoot toads, *Scaphiopus h. hammondii*.

Thamnophis marcianus nigrolateris (Brown). Sonoran Garter Snake.

A number of specimens were found on the roads at night in the valley, both dead and alive. Two were abroad during a drizzle following a heavy rain, July 19. Two others were collected in the daytime near a ranch-house south of Hereford, August 12, where I am told they are common, five more being killed at this spot in the next two days. One specimen contained a toad, *Bufo punctatus*.

Hypsiglena torquata ochrorhyncha Cope. Sonoran Spotted Night Snake.

Two spotted night snakes were collected alive on the road at night, June 26 and August 17, and a third was seen dead. One, a female measuring 440 mm., contained two spadefoot toads (*Scaphiopus h. hammondii*). A fourth was collected in Sawmill Canyon at 6000 feet among pines, August 13, coiled on top of a rock in the late afternoon.

Trimorphodon lambda Cope. Sonoran Lyre Snake.

Three medium-sized individuals were taken on the road. One of these, found in the late afternoon DOR and badly mashed, in the hills below Lowell, was not saved. Another was collected alive at 9:00 P.M. on Route 92 west of Don Luis, August 7, at a point where the road nears a low rocky hill to the north. The third was found dead and in excellent condition,

although it was nearly noon, in the hills east of the San Pedro River near Fairbank, August 18. I have collected this snake before in the mountainous Bisbee area, where it is probably not rare.

Tantilla atriceps (Gunther). Mexican Black-headed Snake.

One adult with an incomplete tail was found under a large dead agave on a hillside south of Leadville, near Courtland, on the western edge of the Sulphur Springs Valley, August 10.

Tantilla wilcoxi wilcoxi Stejneger. Huachuca Black-headed Snake.

One male measuring 225 mm. in total length was found on a rainy afternoon in a small dead agave about 150 feet up the north side of Carr Canyon at about 5600 feet, August 4. A second specimen, a large male measuring 342 mm., was collected on Route 92 close to the base of the mountains at 9:50 P.M., August 15, after a hot day. The bellies of both these individuals are not entirely red, the anterior third, at least, being a plain dull whitish. This is perhaps a characteristic feature of the species and one which I have not seen mentioned in the literature, probably because of a paucity of fresh specimens.

Micruroides euryxanthus (Kennicott). Arizona Coral Snake.

One specimen measuring 443 mm. in total length was brought from Dos Cabezas by Mr. Holland. It was found July 13 in an empty swimming pool near an abandoned mine at an elevation of 5750 feet, apparently an altitudinal record for the species. Quite possibly *Micruroides* extends even higher on the barren Dos Cabezas mountain and may even meet the range of the coral king snake, *L. pyromelana*, which I have seen at 6500 feet on this mountain.

I have had a number of coral snakes from the Tucson area and elsewhere, although they are probably rather rare judging from the scarcity of individuals on roads at night. Only one, a DOR, has been obtained in over 3600 miles of night collecting near Tucson. However, a much greater percentage of these colorful snakes seen by laymen are captured or saved, and thus find their way into the hands of the collector, than less known or less conspicuous varieties. Many of these are either dug up or else found trapped in swimming pools, cattle guards, and the like; others are found crawling about, generally after dark, sometimes inside houses.

Preferring open, dry areas under 6000 feet in elevation, *Micruroides* in the United States appears to range from southwestern New Mexico, possibly including the extreme western corner of Texas, northwestward to at least as

far north as the Prescott-Camp Verde area of central Arizona, and as far west in that state as southeastern Mojave and extreme western Pima counties. This range is based on a debatable, but plausible, El Paso record (Brown, 1950, p. 209); a specimen in the University of California Museum of Vertebrate Zoology from 11 miles n. e. Cliff, Grant County, New Mexico; an early record from Ft. Whipple (Coues, 1875, p. 611); and records from Signal, Mojave County (Van Denburgh, 1922, p. 891) and the Agua Dulce Mountains, Pima County (Gloyd, 1937, p. 121). Earl Jackson of Tumacacori National Monument informs me by letter that he has seen a specimen from Camp Verde. Van Denburgh (1922, p. 891) also records this species from southern Utah, but I agree with Woodbury (1931, p. 109) that this early record needs confirmation. Stejneger and Barbour (1943, p. 180) record it from "Swan Falls, southwestern Idaho on the Snake River," a locality which seems to me questionable.

Examples of this species exhibit some variation in color and pattern, as in the relative width of the bands, and in having the red bands, especially dorsally, sometimes suffused with black. One from Tucson lacks a red band; another lacks three with each red band present containing a dorsal black blotch. In life the light bands are not the yellow of *Micrurus*, as reported by many authors, but are usually only faintly tinged with yellow. Dr. Charles **H.** Lowe, Jr., of the University of Arizona, has been good enough to send me the exact color of the light bands of a freshly shed live specimen, based on Maerz and Paul (1930). The anterior bands correspond to Martius Yellow, Plate 9 I 1; the ones on the middle and posterior parts of the body to Plate 9 E 1 (four squares lighter), and those on the tail to Plate 9 C 1 (or two additional squares lighter). There is slightly more yellow on the dorsal and lateral surface of a ring than on the ventral portion of the same ring.

Dr. Stebbins has kindly permitted me to include what I believe to be a record length for this species. The specimen, taken near Nogales, measured $20^1/_4$ inches in total length, twenty hours after preservation in formalin.

These snakes are gentle, as a rule, and I have never seen one attempt to bite. When teased they jerk about with tail raised and curled, accompanied by a squeaking noise produced by the cloaca. One of my specimens disgorged a worm snake (L. h. humilis); another attempted to eat a juvenile Cnemidophorus. Mr. Jackson writes me that an individual kept by him grasped a Tantilla (probably atriceps) about an inch back of the head. The snake struggled violently for about fifteen minutes "with no diminution of energy," after which it was presumably eaten. Similar behavior has been noted before by Vorhies (1928). Lowe (1948) kept one alive for some time on a diet of Anniella.

Sistrurus catenatus tergeminus (Say). Western Massasauga.

One massasauga was captured alive on Highway 666 at 7:55 P.M., 4½ miles north of Douglas, August 9. This specimen, a male measuring 425 mm. in total length, had a complete string of five rattles. It was nervous and irritable during the short time it was kept alive.

Crotalus atrox Baird and Girard. Western Diamond Rattlesnake.

Several were seen at different times close to the base of the mountains as well as farther down in the valley. One was killed the previous fall at Ft. Huachuca at 5200 feet, by Earl Long. Another, killed on the flats below Ramsay Canyon at 5000 feet by Don Newman, contained a mouse, *Onychomys torridus*. A large and seemingly phlegmatic individual was discovered coiled in a corner of a chicken coop at a ranch near Hereford. When disturbed it became active with a remarkable lunge, a performance it repeated when hauled outside the coop. Once in the collecting sack it immediately quieted down, refusing even to rattle.

Crotalus lepidus klauberi Gloyd. Green Rock Rattlesnake.

The green rock rattlesnake was the commonest snake by far of any species encountered during the summer, more than twice as many of these being obtained as any other snake. It was collected at altitudes ranging from 5500 to 6500 feet. Nearly all specimens were taken in rock slides (mostly south-facing ones), a few in other rocky locations, and one in an open grassy area far from any rocks. These snakes were generally discovered in the open, but rarely indeed could one be spotted before its rattle was heard; others, hidden beneath the rocks, gave themselves away in like manner. If not grasped quickly with the forceps they would disappear into the rocks, keeping up their rattling, but could invariably be dug out. Apparently curious, time and again a snake which could easily have escaped into the depths of the slide would be discovered coiled a short distance down, seemingly watching the digging operation!

On July 22 two adult females and three presumably newborn young were taken together in a slide. One of the latter was immediately preserved and found to measure 210 mm. in total length; the others were approximately 205 and 210 mm. in length. One, the larger, ate a dead *Urosaurus*. They were preserved August 14 and at that time measured 214 and 218 mm.

These snakes vary considerably in appearance, the ground color ranging from gray through greenish to almost bluish; also the shape of the blotches and amount of secondary spotting between them is by no means constant. One specimen contained the remains of a mouse; another, part of a *Sceloparus*,

apparently *clarkii*; and a third, an adult *Sceloporus j. jarrovii*. In captivity dead lizards of the latter species were accepted and live ones refused.

Crotalus molossus molossus Baird and Girard. Northern Black-tailed Rattlesnake.

Over a dozen specimens were captured at altitudes of between 5300 and 7000 feet. Of these, several remained coiled and motionless until actually pinned down and others merely attempted to escape. One, discovered on a rainy afternoon at 6500 feet, stood his ground rattling vigorously with head and neck raised high in the striking position. In captivity some took a few dead mice and kangaroo rats.

No snakes of this species were seen in the higher parts of the mountain; however, L. H. Seaman, who is familiar with the species, informs me that he killed one on the very top of Miller Peak, at 9440 feet. I have collected this snake in the Tucson Mountains at about 2500 feet, and MacCoy (1932, p. 24) lists at least one specimen from what would be a somewhat higher elevation (2 miles south of Sabino Canyon). Van Denburgh (1896, p. 348) refers to an individual "taken at Fort Lowell in June, 1893," a record, if valid, closer to 2400 feet.

Crotalus scutulatus scutulatus (Kennicott). Mojave Rattlesnake.

Individuals were noted on the roads at night in the valley and near the base of the mountains, at elevations of not over 4900 feet.

Crotalus triseriatus pricei Van Denburgh. Arizona Spotted Rattlesnake.

One specimen measuring 435 mm. in total length was taken near the old Hamburg Mine at 7000 feet, July 17, at the entrance to Wisconsin Canyon off Ramsay Canyon. It was found on a rainy afternoon, lying in the open near the creek, apparently just after having eaten a large adult *Sceloporus j. jarrovii*, a remarkable feat for a snake of its size and one which caused it some difficulty in locomotion. This specimen was gray in ground color, similar to many examples of *C. l. klauberi*.

Crotalus willardi willardi Meek. Ridge-nosed Rattlesnake.

Two of these snakes were secured. One, found coiled under a log at 7500 feet on the ridge above upper Carr Canyon, June 28, contained a mouse, *Peromyscus boylii*. The other was under a board at the Sylvania Ranch in Scotia Canyon, at 6200 feet, July 19. This one took dead lizards eagerly in captivity. Neither made any attempt to escape when discovered, nor did they offer much resistance to capture.

Literature Cited

Brown, B. C.

An annotated check list of the reptiles and amphibians of Texas. Waco, Baylor University Press, xii+257 p.

Coues, E.

1875 Synopsis of the reptiles and batrachians of Arizona; with critical and field notes, and an extensive synonymy. Rep. Geog. Geol. Surv. W. 100th Merid., vol. 5, p. 585-633.

Gloyd, H. K.

1937 A herpetological consideration of faunal areas in southern Arizona. Chicago Acad. Sci., Bull., vol. 5, no. 5, p. 79-136, 22 fig.

Kauffeld, C. F.

Field notes on some Arizona reptiles and amphibians. Amer. Midl. Nat., vol. 29, no. 2, p. 342-359, 2 fig.

Klauber, L. M.

1939 Studies of reptile life in the arid southwest. Bull. Zool. Soc. San Diego, no. 14, p. 1-100, 19 tables.

Lowe, C. H., Jr.

1948 Effect of venom of Micruroides upon Xantusia vigilis. Herpetologica, vol. 4, pt. 4, p. 136.

MacCoy, C. V.

Herpetological notes from Tucson, Arizona. Occ. Papers Boston Soc. Nat. Hist., vol. 8, p. 11-24.

Maerz, A. and Paul, M. R.

1930 A dictionary of color. New York: McGraw-Hill, vii+207 p., 56 pl. Stejneger, L.

1902 The reptiles of the Huachuca Mountains, Arizona. Proc. U. S. Nat. Mus., vol. 25, p. 149-158.

Stejneger, L. and Barbour, T.

1943 A check list of North American amphibians and reptiles. Bull. Mus. Comp. Zool., vol. 93, no. 1, p. 1-260.

Taylor, E. H.

Notes on two specimens of the rare snake *Ficimia cana* and the description of a new species of *Ficimia* from Texas. Copeia, no. 4, p. 4-7. Van Denburgh, J.

A list of some reptiles from southeastern Arizona, with a description of a new species of *Cnemidophorus*. Proc. California Acad. Sci., ser. 2, vol. 6, p. 338-349, pl. 49, 50.

1922 The reptiles of western North America. Occ. Papers California Acad. Sci., no. 10, 2 vol., 1028 p., 128 pl.

Vorhies, C. T.

1928 Feeding of *Micrurus euryxanthus*, the Sonoran coral snake. Bull. Antivenin Inst. Amer., vol. 2, p. 98.

Woodbury, A. M.

1931 A descriptive catalog of the reptiles of Utah. Bull. Univ. Utah, vol. 21, no. 5, p. 1-129, 58 fig.